

REMARKS

Claims 1-5 are all the claims pending in the application. Applicant thanks the Examiner for acknowledging the claim for foreign priority under 35 U.S.C. § 119.

I. Specification

The Examiner objects to the disclosure because of informalities. Applicant herein corrects the informalities and respectfully requests the Examiner to withdraw this objection.

II. Claim Objections

The Examiner objects to informalities in claims 1 and 3. Applicant herein corrects the informalities and therefore respectfully requests the Examiner to withdraw this objection to claims 1 and 3.

III. Claim Rejections-35 U.S.C. § 112

The Examiner rejected claim 3 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant amends claim 3 to address the Examiner's concern. Applicant therefore respectfully requests the Examiner to withdraw this rejection of claim 3.

IV. Prior Art Rejections-35 U.S.C. § 102

The Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as allegedly being anticipated by Kremer (5,406,549). Applicant respectfully traverses.

A. Claim 1

Herein amended claim 1 requires, *inter alia*:

interconnecting a Multiplex Section Shared Protection ring network with a Subnetwork Connection Protection ring network via a primary interconnection node and a secondary interconnection node by an optical-fiber span, wherein said primary interconnection node comprises a means for performing a Drop & Continue operation, and only one Service Selector; and closing said Subnetwork Connection Protection ring network through the Service Selector of the primary interconnection node of the Multiplex Section Shared Protection ring network, wherein said primary interconnection node is free of a path selector.

Regarding claim 1, the Examiner stated that “Kremer disclosed a method for interconnecting a Multiplex Section Shared Protection ring network with a Subnetwork Connection Protection ring network in a Dual Node and Bridge & Switch architecture through a primary interconnection node and a secondary interconnection node connected by an optical-fiber span (see Fig. 1: Ring 100, Ring 101, the first shared node 130, the additional shared node 131, optical fiber paths 116 and 117), said primary interconnection node comprising means for performing a Drop & Continue operation and a Service Selector for each circuit (see Fig. 1: 112, 132 and 120, and see Fig.2: selectors 207-209), wherein...closing said Subnetwork Connection Protection ring network through the Service Selector of the primary node of the Multiplex Section Shared Protection ring network (see col.3, lines 23-52: in which, the Rings 100 (MS-SP ring) and 101 (SNCP ring) are closed together by the interconnection of ring nodes 112 and 120 in shared node 103 (the primary node), which are being interconnected by inter-ring grooming apparatus (hence, closing said Subnetwork Connection Protection ring network through the Service Selector of the primary node of the Multiplex Section Shared protection ring network)).” (Office Action, pages 3 and 4).

In Kremer, the Examiner identified the Path-Switched Rings 100 and 101 of Fig.1 as a Multiplex Section Shared Protection ring network and a Subnetwork Connection Protection ring network respectively. Regarding the Path-Switched Rings 100 and 101, however, Kremer neither illustrates nor discusses automatic restoration of traffic carried out at each node utilizing shared protection channels, which is indicative of a MS-SPRING network. Kremer describes the Path-Switched Rings 100 and 101 of Fig. 1 as showing “in simplified block form, a path-switched ring transmission system interworking with another path-switched ring transmission system including inter-ring grooming” (col. 2, lines 65-68). Further regarding the transmission paths or channels of the Path-Switched Rings of Fig. 1, Kremer teaches that “transmission paths 116 and 117 are comprised of optical fibers and, typically, each is comprised of a single optical fiber...Similarly ring nodes 120 through 125 are interconnected by transmission path 128 and by transmission path 129” (col. 3, lines 56-62). Kremer fails to teach “interconnecting a Multiplex Section Shared Protection ring network with a Subnetwork Connection Protection ring network”. Rather, Kremer’s focus is on preventing corrupted and failed lower level signals from being passed as good digital signals¹ between Path-Switched rings.

Additionally, Kremer does not teach that the “primary interconnection node comprises...only one Service Selector” and “said primary interconnection node is free of a path selector.” Even if, *arguendo*, one of the Path-Switched Rings were a MS-SPRING, Kremer in Fig.2 shows multiple selectors 207-209, as indicated by the Examiner², thus not meeting the

¹ See *Geneally*, Kremer col. 2, lines 1-32.

² Office Action, page 4.

requirement of “only one Service Selector”. Incidentally, Kremer also would not teach “closing said Subnetwork Connection Protection ring network through the Service Selector [with]...the Multiplex Section Shared Protection ring network” because of the deficiencies discussed above.

Therefore, since Kremer does not teach “interconnecting a Multiplex Section Shared Protection ring network with a Subnetwork Connection Protection ring network”, “primary interconnection node comprises...only one Service Selector”, and “closing said Subnetwork Connection Protection ring network through the [single] Service Selector [with]...the Multiplex Section Shared Protection ring network, wherein said primary interconnection node is free of a path selector”, Kremer cannot anticipate claim 1. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 1 and its dependent claim 2.

B. Claim 3

The arguments for claim 1 are analogous to claim 3. Herein amended independent claim 3 requires:

A network element for interconnecting a Multiplex Section Shared Protection ring network and a Subnetwork Connection Protection ring network in a Dual Node and Bridge & Switch architecture, said Dual Node comprises only one Service Selector wherein said Service Selector

selects one signal between:

- a signal coming from said Subnetwork Connection Protection ring network and directly entering a primary node, and
- a signal coming from said Subnetwork Connection Protection ring network, passed through a secondary node, and entering said primary node by travelling down an optical-fiber span that connects the primary and secondary nodes; and

sends said selected signal to the destination node of the Multiplex Section Shared Protection ring network, wherein said Dual Node is free of a path selector.

As discussed above, Kremer does not teach “interconnecting a Multiplex Section Shared Protection ring network with a Subnetwork Connection Protection ring network”, “said Dual Node comprises only one Service Selector”, and “said Dual Node is free of a path selector”.

Consequently, Kremer would then not teach a selected signal is sent from said Subnetwork Connection Protection ring network “to the destination node of the Multiplex Section Shared Protection ring network”, because Kremer does not interconnect a MS-SPRING network with a SNCP ring network.

Since Kremer does not anticipate claim 3, Applicant therefore respectfully requests the Examiner to withdraw this rejection of claim 3 also.

V. Obviousness Rejections-35 U.S.C. § 103

The Examiner rejected claim 4 under 35 U.S.C. § 103 as allegedly being unpatentable over Kremer in view of Cox, Jr. (5,515,367).

Applicant has already pointed out above that Kremer is deficient in that it does not teach the features of base claim 1. Cox does not make up for this deficiency. Cox is cited for using a computer program to model information regarding the ring network (col. 4, lines 50-67).

Even taken together for what they would have meant as a whole to an artisan of ordinary skill, the combined teachings of Kremer and Cox cannot be said to lead to a system defined by independent claim 1 nor its dependent claim 4. Applicant therefore respectfully requests the Examiner to withdraw this rejection of claim 4.

The Examiner rejected claim 5 under 35 U.S.C. § 103 as allegedly being unpatentable over Kremer in view of de Boer (6,658,013).

Applicant has already discussed above that Kremer is deficient in that it does not teach the features of base claim 1. Boer does not make up for this deficiency. Boer is cited for an aspect using a computer-readable storage medium (col. 4, lines 43-44).

Even taken together for what they would have meant as a whole to an artisan of ordinary skill, the combined teachings of Kremer and Boer cannot be said to lead to a system defined by independent claim 1 nor its dependent claim 5. Applicant therefore respectfully requests the Examiner to withdraw this rejection of claim 5.

VI. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/863,468

Attorney Docket No. Q64538

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

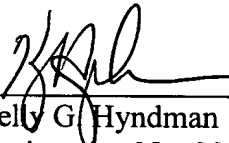
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Date: March 21, 2005